

REMARKS*Rejections Relying on 35 U.S.C. § 102(e)*

Applicant notes that references used in support of the rejections rely on 35 U.S.C. § 102(e). In responding to the rejections, Applicant does not admit that the references are prior art and Applicant specifically reserves the right to swear behind these references at a future date. However, Applicant contends that the claims are patentably distinct from the cited references as presented herein.

Amendment Summary

Claims 12, 16, 35 and 39 are amended herein to correct clerical and typographical errors. Claims 1, 16 and 24 are amended herein for clarity of scope. Applicant contends that the amendments are supported by the Specification as filed and thus do not constitute new matter.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-2, 7-11, 24-25 and 30-33 were rejected under 35 U.S.C. § 102(e) as being anticipated by Larsen et al. (U.S. Publication No. 2001/0036810 A1).

Claims 1-2 and 7-11

Claim 1 is amended to recite, in part, “determining from said central station whether one or more of said remote stations has become a lost station due to a communication failure between said central station and said lost station.” Applicant contends that Larsen et al. does not teach or suggest that its central station (base station) is capable of determining what remote stations (mobile stations) have become lost stations due to a communication failure between its base station and its mobile stations. Larsen et al. only purports to determine path loss between user equipment relay nodes, and only if that user equipment relay node is specifically addressed. *See*, Larsen et al., paragraph 0239 and accompanying table (“Path loss between transmitting and receiving UE_R (addressed probes only)”). Larsen et al. further does not indicate that such a path loss between addressed user equipment relay nodes (UE_R) would result in a communication failure between any mobile station and its base station. Thus, Larsen et al. does not teach or suggest at least this limitation of Applicant’s claim 1.

Claim 1 is further amended to recite, in part, “in response to determining that a remote station has become a lost station, identifying from said central station at least one of said remote stations that can act as a relay station that can relay information from said central station to said lost station or to another of said remote stations that can also act as a relay station.” Applicant contends that Larsen et al. does not determine relay nodes in response to determining that there has been a communication failure between its base station and a mobile station, but does so in response to a desire to initiate a call to a mobile station or to establish a relay link back to a mobile station in response to a mobile initiated call. *See*, Larsen et al., paragraphs 0026-0036. Thus, Larsen et al. does not teach or suggest at least this limitation of Applicant’s claim 1.

In view of the foregoing, Applicant contends that claim 1 is patentably distinct from the cited reference. As claims 2 and 7-11 include all patentable limitations of claim 1, these claims are also believed to be allowable. Applicant thus respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e), and allowance of claims 1-2 and 7-11.

Claims 24-25 and 30-33

Claim 24 is amended to recite, in part, “wherein, said central station controller is programmed to: determine whether any of said remote stations has become a lost station due to a communication failure between said central station and said lost station” and to “identify, in response to determining that a remote station has become a lost station, at least one of said remote stations that can act as a relay station that can relay information from said central station to said lost station or to another of said remote stations that can also act as a relay station.” As noted with respect to claim 1, Applicant contends that Larsen et al. does not teach or suggest at least these limitations of Applicant’s claim 24. In particular, Applicant contends that Larsen et al. does not teach or suggest that its base station is capable of determining whether a mobile station has become lost, and to then identify relay stations in response to determining that the mobile station has become lost.

In view of the foregoing, Applicant contends that claim 24 is patentably distinct from the cited reference. As claims 25 and 30-33 include all patentable limitations of claim 24, these claims are also believed to be allowable. Applicant thus respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e), and allowance of claims 24-25 and 30-33.

Claim Rejections Under 35 U.S.C. § 103

Claims 12-23 and 35-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Larsen et al. (U.S. Publication No. 2001/0036810 A1) in view of Tuomainen et al. (U.S. Patent No. 7,020,102 B2).

Claims 16-23 and 39-46

The Office Action acknowledges that Larsen et al. does not disclose operating one or more remote stations in first and second alternating power modes. Office Action, page 7, last paragraph. The Office Action then combines Tuomainen et al. to provide for the missing elements. Office Action, page 8, first paragraph. While Applicant acknowledges that Tuomainen et al. does disclose a system of alternating power modes, the operation of those modes differs from the operation as recited in Applicant's claims.

Claims 16 and 39 each require that if, while operating in its power up mode, a controller detects that information is being received from the central station, the controller will maintain its remote station in the power up mode until the remote station transceiver has received the information, the controller has processed the information, and the transceiver has sent a reply back to said central station, after which said controller switches said remote station back to said low power mode for said first selected period of time." In contrast, Tuomainen et al. does not teach switching back to a low power mode upon processing received information and sending a reply, but teaches that it must receive additional information in the way of a synchronization burst, calculate timing from the received burst and make a decision whether to revert back to its idle mode only if there is a sufficient time. *See*, Tuomainen et al., Figures 3-4 and accompanying text. Thus, taken either alone or in combination, the cited references do not teach or suggest methods or systems for alternating between power modes as recited in Applicant's claims 16 and 39.

In view of the foregoing, Applicant contends that claims 16 and 39 are patentably distinct from the cited references, taken either alone or in combination. As claims 17-23 include all patentable limitations of claim 16, and claims 40-46 include all patentable limitations of claim 39, these claims are also believed to be allowable. Applicant thus respectfully requests

reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a), and allowance of claims 16-23 and 39-46.

Claims 12-15 and 35-38

Applicant contends that it has shown claims 1 and 24 to be patentably distinct from the primary reference of Larsen et al. The secondary reference of Tuomainen et al. does not cure the deficiencies of the Larsen et al. reference. Particularly, the secondary reference of Tuomainen et al. does not teach or suggest a base station capable of determining whether a mobile station has become lost, and to then identify relay stations in response to determining that the mobile station has become lost. As such, Larsen et al. and Tuomainen et al., taken either alone or in combination, fail to teach or suggest at least these limitations of claims 1 and 24.

In view of the foregoing, Applicant respectfully submits that claims 1 and 24 are allowable over Larsen et al. and Tuomainen et al., taken either alone or in combination. As claims 12-15 include all patentable limitations of claim 1, and claims 35-38 include all patentable limitations of claim 24, these claims are also believed to be allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a), and allowance of claims 12-15 and 35-38.

Allowable Subject Matter

Claims 3-6 and 26-29 were objected to as being dependent upon a rejected base claim, but were indicated as being allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Applicant submits that it has shown independent claims 1 and 24 to be patentably distinct from the cited references. As claims 3-6 contain all patentable limitations of claim 1, and claims 26-29 contain all patentable limitations of claim 24, these claims are believed to be allowable in their current form. Applicant thus respectfully requests reconsideration and withdrawal of the objection, and allowance of claims 3-6 and 26-29.

CONCLUSION

Claims 1, 12, 16, 24, 35 and 39 are amended herein. Claims 1-46 are currently pending.

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case.

The Examiner is invited to contact Applicant's Representative at 321-867-7214 if there are any questions regarding the instant Response or if prosecution of this application may be assisted thereby. No new matter has been entered and no additional fee is required by this amendment.

Please deem this a petition for extension of time if necessary to maintain pendency of this patent application. Please charge any additional fees necessary to maintain pendency of this patent application or credit any overpayment to Deposit Account No. 14-0116.

Respectfully submitted,

/Randall M. Heald/

Date

Randall M. Heald
Reg. No.: 28,561
NASA John F. Kennedy Space Center
Mail Code CC-A
Kennedy Space Center, FL 32899
Tel. No.: 321-867-7214
Fax No.: 321-867-1817
Customer No.: 25190